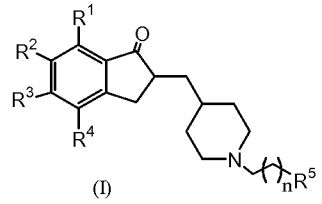
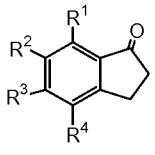
ABSTRACT

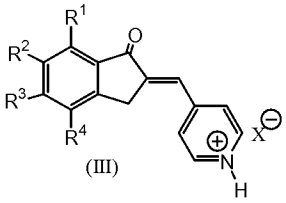
[0066] A process for producing a Donepezil derivative represented by the formula (I), wherein R^1, R^2, R^3, and R^4 each independently represents H, F, an alkyl having from 1 to 4 carbon atoms, or an alkoxy having from 1 to 4 carbon atoms; R^5 represents a phenyl or a substituted phenyl; and n is an integer from 0 to 2, characterized in that the process comprises: (a) a reaction of 4-pyridinecarboxaldehyde with a compound of formula (II) in the presence of a strong acid HX to form a compound of formula (III); (b) a catalytic hydrogenation of a compound of formula (III) or a compound of formula (V) to yield a compound of formula (IV); and (c) an alkylation reaction of a compound of formula (IV) to yield a compound of formula (I).



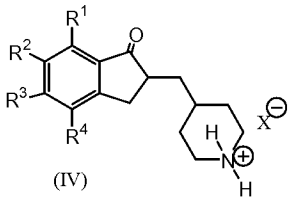
(I)



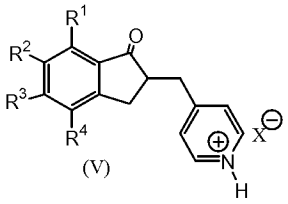
(II)



(III)



(IV)



(V)